

Short Course title:



Short Course Presenter:

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Short Course description:

With the global shift towards project-based organisations, project management has become an essential business skill for all successful professional engineers, engineering managers and business executives. Project Management is no longer reserved only for the professional project engineer or managers of large and complex projects. Today, project management skills are used by business and services professionals across the board to get tasks done and projects completed on time and within budgets. Furthermore, project management skills are not exclusively useful for large projects and high level project managers: the basics of project management can be applied to projects of all shapes and sizes and can totally revolutionise current working practices.

In order to train engineering, business and administrative professionals, the basic objective of this short course is to introduce the participants to the principles of *project management* and to plan and control projects with the application of time-based planning techniques using computer-aided project management software.

The course is focused on practical application, enabling participants to apply techniques immediately.

Short Course Content:

The short course covers the following key topics:

- project identification and project portfolios,
- defining the project environment,
- defining required project manager skills,
- project management organisations,
- the project charter (master plan and action plan),
- work breakdown structures,
- task relationships,
- project scheduling,
- resource allocation,
- project costing and budgeting,
- time-cost trade-offs,
- project risk identification and management,
- creating a winning proposal,
- contracts and procurement management,
- project monitoring and quality control,
- change control and configuration management,
- team leadership and conflict management.
- task prioritising
- time management
- effective project closure and termination
- aspects of Agile/Lean Project Management

After covering the theory, the participants will be given hands-on experience in the use of Microsoft® Project 2013 during a computer tutorial using real life examples. Throughout the whole short course, ample time will be allowed for discussions and participation using practical exercises.

It is expected that the short course participants will be able to use computer software like Microsoft® Windows and Office with reasonable ease. Basic principles of project management should be an advantage.

Short Course Outcomes:

After completing this short course, the participant will be able to:

- Structure a new project within the appropriate organisation type and project manager profile.
- Plan the project using budget and WBS structures and incorporating risk management.
- Schedule the project with reference to time, resources and cost, using CPM and PERT techniques.
- Do time-cost trade-offs in order to “crash” a project.
- Prepare a winning project proposal.
- Use the correct contract type to procure project resources.
- Control the project with techniques like Earned Value Analysis and Critical Ratios.
- Prioritise activities within a project and effectively plan and manage own time.
- Use Microsoft Project® to execute the full project.

Short Course Assessment:

Course participants are assessed on *attendance plus practical project case study to evaluate competency*.

The Course is fully accredited by ECSA (Engineering Council of South Africa). This means that engineering participants who successfully complete the practical case study (Competency), earn 5 CPD points plus a Certificate of Competency.

Short Course Duration:

The contact lectures for the short course is structured to run for five days (mornings only). The practical case study must be completed within 6 weeks after completion of the contact lectures.

Course date for 2016:

This short course is presented from 5 to 9 September. It is ideally suited for postgraduate engineering students from the Faculty of Engineering. However, a number of non-engineering participants from outside the faculty structure can be accommodated, depending on the demand. The short course can also be presented at other times as well as other venues, depending on suitable numbers of participants and client requirements.

Cost of short course for 2016:

The cost per participant is as follows:

- US MStructured students: This short course will run simultaneously with a post-grad module no. 51993-873. MStructured students will qualify for the 15 credits on their study record (if they pass) - and their student account will be debited. Please send an email to cjf@sun.ac.za to register for the module. Please note **MStructured students will not receive a certificate.
- US MResearch students: R5 250 (Payment cannot be made via student accounts – payment will have to be made when registering online via the link below. Successful participants will receive a Certificate of Competence.
- Outside participants: R10 500 payable when registering online via the link below. Successful participants will receive a Certificate of Competence.

The cost includes the full short course, course notes, practical case studies, tutorials and certification where applicable.

Registration and contact:

To register for this short course, please follow the following link to the University Short Course webpage:

<http://apps.sun.ac.za/SCD/ApplicationForm.aspx?offeringid=0e37b605-3f43-e611-a28d-0050568000ff>

The number of participants is limited to 30, so please register early.

Closing date for registration: 22 August 2016